## · Claims

## 1-17 (cancelled)

18. (new) A fluorescent whitening agent which is a composition comprising a mixture of two symmetrical compounds (1a) and 1(c) and one asymmetrical compound 1(b) of the formulae

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in which R<sub>1</sub> and R<sub>2</sub> are different and

 $R_1$  represents -NH<sub>2</sub>, -NHC<sub>1</sub>-C<sub>4</sub>alkyl, -N(C<sub>1</sub>-C<sub>4</sub>alkyl)<sub>2</sub>, -NHC<sub>2</sub>-C<sub>4</sub> hydroxyalkyl, -N(C<sub>2</sub>-C<sub>4</sub>hydroxyalkyl)<sub>2</sub>, -N(C<sub>1</sub>-C<sub>4</sub>alkyl)(C<sub>2</sub>-C<sub>4</sub> hydroxyalkyl), a morpholino, piperidino or pyrrolidino residue,

 $R_2$  represents -NHC<sub>2</sub>-C<sub>4</sub> hydroxyalkyl, -N(C<sub>2</sub>-C<sub>4</sub>hydroxyalkyl)<sub>2</sub>, -N(C<sub>1</sub>-C<sub>4</sub>alkyl)(C<sub>2</sub>-C<sub>4</sub> hydroxyalkyl), or an amino acid or an amino acid amide residue from which a hydrogen has been removed from the amino group,

each R<sub>3</sub>, independently, represents hydrogen, C<sub>1</sub>-C<sub>4</sub>alkyl or C<sub>1</sub>-C<sub>4</sub>alkoxy and

M represents hydrogen, an alkali metal atom, ammonium or a cation formed from an amine.

19. (new) A composition according to claim 18, in which R<sub>2</sub> is an aliphatic amino acid or an amino acid amide residue of the formula

 $-NR_4$ -CH(CO<sub>2</sub>H)-R<sub>4</sub> (2) or  $-NR_4$ -CH<sub>2</sub>CONH<sub>2</sub> (3),

in which each  $R_4$  and  $R_{4'}$ , independently, represent hydrogen or a group having the formula -CHR<sub>5</sub>R<sub>6</sub> in which  $R_5$  and  $R_6$ , independently, are hydrogen or  $C_1$ - $C_4$ alkyl optionally substituted by one or two substituents selected from the group consisting of hydroxy, thio, methylthio, amino, carboxy, sulfo, phenyl, 4-hydroxyphenyl, 3,5-diiodo-4-hydroxyphenyl,  $\beta$ -indolyl,  $\beta$ -imidazolyl and NH=C(NH<sub>2</sub>)NH-.

20. (new) A composition according to claim 18, in which  $R_2$  is derived from glycine, alanine, sarcosine, serine, cysteine, phenylalanine, tyrosine (4-hydroxyphenylalanine), diiodotyrosine, tryptophan ( $\beta$ -indolylalanine), histidine ( $\beta$ -imidazolylalanine),  $\alpha$ -aminobutyric acid, methionine, valine ( $\alpha$ -aminoisovaleric acid), norvaline, leucine ( $\alpha$ -aminoisocaproic acid), isoleucine ( $\alpha$ -amino- $\beta$ -methylvaleric acid), norleucine ( $\alpha$ -amino-n-caproic acid), arginine, ornithine ( $\alpha$ , $\delta$ -diaminovaleric acid), lysine ( $\alpha$ , $\epsilon$ -diaminocaproic acid), aspartic acid (aminosuccinic acid), glutamic acid ( $\alpha$ -aminoglutaric acid), threonine, hydroxyglutamic acid, taurine, mixtures and optical isomers thereof, or from iminodiacetic acid or from N-(propionamido)-N-(2-hydroxyethyl)amine.

21. (new) A composition according to claim 18 in which R<sub>2</sub> represent a mono-(2-hydroxyethyl)amino, a di-(2-hydroxyethyl)amino, an N-(2-hydroxyethyl)-N-methylamino, an aspartic acid or an iminodiacetic acid residue.

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- 22. (new) A composition according to claim 21 in which R<sub>2</sub> represents an aspartic acid, or an iminodiacetic acid residue.
- 23. (new) A composition according to claim 18, in which M represents hydrogen, lithium, potassium, sodium, ammonium, mono-, di-, tri- or tetra- $C_1$ - $C_4$ alkylammonium, mono-, di- or tri- $C_1$ - $C_4$ hydroxyalkylammonium or ammonium that is di- or tri-substituted with a mixture of  $C_1$ - $C_4$ alkyl and  $C_1$ - $C_4$ hydroxyalkyl groups.
- 24. (new) A composition according to claim 23, in which M represents hydrogen, potassium or sodium.
- 25. (new) A process for the preparation of the compound mixture of formulae (1a), (1b) and (1c) of claim 18 which process comprises reacting, under known reaction conditions, cyanuric chloride, successively, in any desired sequence, with each of
- i) 4,4'-diaminostilbene-2,2'-disulphonic acid,
- ii) aniline or aniline substituted by C<sub>1</sub>-C<sub>4</sub>alkyl or C<sub>1</sub>-C<sub>4</sub>alkoxy,
- iii) an amino compound R<sub>1</sub>H and
- iv) an amino compound R<sub>2</sub>H

or, alternatively

- i) 4,4'-diaminostilbene-2,2'-disulphonic acid,
- ii) aniline or aniline substituted by C<sub>1</sub>-C<sub>4</sub>alkyl or C<sub>1</sub>-C<sub>4</sub>alkoxy, and
- iii) a mixture of an amino compound R<sub>1</sub>H and an amino compound R<sub>2</sub>H

wherein R<sub>1</sub> and R<sub>2</sub> are different and

 $R_1$  represents -NH<sub>2</sub>, -NHC<sub>1</sub>-C<sub>4</sub>alkyl, -N(C<sub>1</sub>-C<sub>4</sub>alkyl)<sub>2</sub>, -NHC<sub>2</sub>-C<sub>4</sub> hydroxyalkyl, -N(C<sub>2</sub>-C<sub>4</sub>hydroxyalkyl)<sub>2</sub>, -N(C<sub>1</sub>-C<sub>4</sub>alkyl)(C<sub>2</sub>-C<sub>4</sub> hydroxyalkyl), a morpholino, piperidino or pyrrolidino residue and

 $R_2$  represents -NHC<sub>2</sub>-C<sub>4</sub> hydroxyalkyl, -N(C<sub>2</sub>-C<sub>4</sub>hydroxyalkyl)<sub>2</sub>, -N(C<sub>1</sub>-C<sub>4</sub>alkyl)(C<sub>2</sub>-C<sub>4</sub> hydroxyalkyl), or an amino acid or an amino acid amide residue from which a hydrogen has been removed from the amino group.

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26. (new) A process according to claim 25, wherein cyanuric chloride is initially reacted with 4,4'-diaminostilbene-2,2'-disulphonic acid.

27. (new) A process according to claim 26, wherein cyanuric chloride is initially reacted with 4,4'-diaminostilbene-2,2'-disulphonic acid, followed by reaction with aniline or aniline substituted by  $C_1$ - $C_4$ alkyl or  $C_1$ - $C_4$ alkoxy and then with a mixture of amino compounds  $R_1$ H and  $R_2$ H.

## 28. (new) A compound of the formula

in which

R<sub>1</sub> and R<sub>2</sub> are different and

 $R_1$  represents -NH<sub>2</sub>, -NHC<sub>1</sub>-C<sub>4</sub>alkyl, -N(C<sub>1</sub>-C<sub>4</sub>alkyl)<sub>2</sub>, -NHC<sub>2</sub>-C<sub>4</sub> hydroxyalkyl, -N(C<sub>2</sub>-C<sub>4</sub>hydroxyalkyl)<sub>2</sub>, -N(C<sub>1</sub>-C<sub>4</sub>alkyl)(C<sub>2</sub>-C<sub>4</sub> hydroxyalkyl), a morpholino, piperidino or pyrrolidino residue,

R<sub>2</sub> represents an amino acid or an amino acid amide residue from which a hydrogen has been removed from the amino group,

R₃ represents hydrogen, C₁-C₄alkyl or C₁-C₄alkoxy and M represents hydrogen, an alkali metal atom, ammonium or a cation formed from an amine.

29. (new) A compound according to claim 28, in which  $R_2$  is derived from glycine, alanine, sarcosine, serine, cysteine, phenylalanine, tyrosine (4-hydroxyphenylalanine), diiodotyrosine, tryptophan ( $\beta$ -indolylalanine), histidine ( $\beta$ -imidazolylalanine),  $\alpha$ -aminobutyric acid, methionine, valine ( $\alpha$ -aminoisovaleric acid), norvaline, leucine ( $\alpha$ -aminoisocaproic acid), isoleucine ( $\alpha$ -amino- $\beta$ -methylvaleric

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acid), norleucine ( $\alpha$ -amino-n-caproic acid), arginine, ornithine ( $\alpha$ , $\delta$ -diaminovaleric acid), lysine ( $\alpha$ , $\epsilon$ -diaminocaproic acid), aspartic acid (aminosuccinic acid), glutamic acid ( $\alpha$ -aminoglutaric acid), threonine, hydroxyglutamic acid and taurine, as well as mixtures and optical isomers thereof, or from iminodiacetic acid or from N-(propionamido)-N-(2-hydroxyethyl)amine.

- 30. (new) A composition according to claim 28 in which R<sub>2</sub> represents an aspartic acid, or an iminodiacetic acid residue.
- 31. (new) A composition according to claim 28, in which M represents hydrogen, lithium, potassium, sodium, ammonium, mono-, di-, tri- or tetra- $C_1$ - $C_4$ alkylammonium, mono-, di- or tri- $C_1$ - $C_4$ hydroxyalkylammonium or ammonium that is di- or tri-substituted with a mixture of  $C_1$ - $C_4$ alkyl and  $C_1$ - $C_4$ hydroxyalkyl groups.
- 32. (new) A composition according to claim 31, in which M represents hydrogen, potassium or sodium.
- 33. (new) A composition for whitening synthetic or natural organic materials, which composition contains water, a fluorescent whitening agent comprising a mixture of the compounds (1a), (1b) and (1c), according to claim 18, and, optionally, one or more auxiliaries selected from the group consisting of dispersants, water retention aids, biocides and adjuvants.
- 34. (new) A method for adding optical brightening agents to paper which method comprises the step of applying a composition of claim 33 either to a paper substrate in a pulp mass, to a paper substrate in a size-press, to a paper substrate in a metering press or contacting a paper surface with a coating application comprising a composition of claim 11.
- 35. (new) A method, for increasing the Sun Protection Factor (SPF) rating or for the fluorescent whitening of a textile fibre material which method comprises the step of treating said textile fibre material with a composition of claim 33.

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